



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,875	01/30/2001	Yoshitomo Kumagai	1081.1107/JDH	9019
21171	7590	10/19/2005	EXAMINER	
STAAS & HALSEY LLP			KANG, INSUN	
SUITE 700			ART UNIT	PAPER NUMBER
1201 NEW YORK AVENUE, N.W.				
WASHINGTON, DC 20005			2193	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/771,875	KUMAGAI, YOSHITOMO
Examiner	Art Unit	
Insun Kang	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 July 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,4-7 and 9-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1, 2, 4-7, and 9-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 7/22/2005.
2. As per applicant's request, claims 1, 6, 11, 12, 15, 18, and 19 have been amended. Claims 1, 2, 4-7, and 9-19 are pending in the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiromichi et al. (JP 07-073011, published 3/17/1995) hereinafter referred to as "Hiromichi."

Per claim 15:

Hiromichi discloses:

- a GUI definition file for said application (page 3 paragraph 0002 and 0004)
- a display device ("graphic display devices," abstract)
- a creating means for rewriting a GUI information of a GUI definition file for the application of said original operating system environment to a target GUI information of a GUI definition file for the application in said target operating system environment so as to allow a created GUI image to be displayed in said target operating system

environment("When the virtual graphic interface section is prepared ...and drawing environments differ, it is attained by changing only the ...environmental dependence section," page 3 paragraph 0005)

for replacing an original operating system dependent portion of an interface layer of the application in said original operating system environment providing the first platform with a target operating system dependent portion of an interface layer of the application in said target operating system environment providing second platform to create the application of the target operating system environment transferring the application...environment("When the virtual graphic interface section is prepared ...and drawing environments differ, it is attained by changing only the ...environmental dependence section," page 3 paragraph 0005) as claimed.

Per claim 16:

The rejection of claim 15 is incorporated, and further, Hiromichi teaches: the operating system dependent portions comprise dependent portions that draw GUI images in a window of a display according to an image instruction of the application by using corresponding GUI definition file ("What it depends for on change of a drawing environment is only the drawing data display module...change of a drawing environment can be coped with only by modification of the drawing data display module," page 5 paragraph 0009) as claimed.

Per claim 17:

The rejection of claim 15 is incorporated, and further, Hiromichi teaches:

Art Unit: 2193

-said creating means creates said target GUI definition file from the GUI definition file to allow that a GUI tool of the target operating system environment displays the GUI images in a window of a display according to a processing of the operating system dependent portion used in said target GUI definition file ("When the virtual graphic interface section is prepared ...and drawing environments differ, it is attained by changing only the ...environmental dependence section," page 3 paragraph 0005) as claimed.

Per claims 12-14, they are the method versions of claims 15-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 15-17 above.

Per claim 18:

Hiromichi discloses:

displaying a menu status using graphical user interface files of the application in the first operating system, the first and second operating systems providing different platforms("What it depends for on change of a drawing environment is only the drawing data display module...change of a drawing environment can be coped with only by modification of the drawing data display module," page 5 paragraph 0009), and automatically creating and displaying another graphical user interface for the application in the second operating system, wherein graphical user interface of the application in the first operating system is added to the created graphical user interface for the application in the second operating system to transfer the application from ...operating system ("When the virtual graphic interface section is prepared ...and drawing

environments differ, it is attained by changing only the ...environmental dependence section," page 3 paragraph 0005) as claimed.

Per claim 19, it is another method version of claim 18, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 18 above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 2, 4- 6, 7, 9-11, and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al (US Patent 5,956,029), hereinafter referred to as "Okada," in view of Blanton et al. ("Performance of Windows NT Porting Environments," IEEE, 3/1999) hereinafter referred to as "Blanton."

Per claim 1:

Okada discloses:

- displaying a menu status by using an origin GUI definition file for the application in said original operating system environment ("The picture information ... is triggered by the event from the event acquiring section ... to acquire picture information constituted by logic structure information indicating the configurations of the window displayed on the picture and interactive components such as a menu, buttons, and the like on the window, layout information indicating the positions and sizes of the

interactive components, and attribute information about the captions (item names) and focus states of the interactive components... The picture information ... stores the acquired information in the picture information storage section," col 4, lines 43-64). See also FIGS. 7A and 7B showing the display picture and the picture information displayed.

- creating a target GUI definition file for the application in said target operating system environment, said original and target operating systems providing different platforms ("When the picture information is acquired, the target point extracting section 113 refers to the target point information in the target point information storage section 114 (step S305) and extracts target point picture information from the picture information stored in the picture information storage section 112," col 4, lines 51-67, col 5, lines 1-14; "a user interface conversion method of converting a picture interface provided by an application program running on an operating system having a graphical user interface to generate and provide a new picture interface, comprising the steps of acquiring picture information of the application program in response to, as a trigger, a change in the picture provided by the application program, determining a target point in the acquired picture information, generating converted picture information from the determined target point by referring to conversion template information, and displaying a converted picture in accordance with the generated converted picture information," col 2, lines 32-45; see also col 10, lines 47-65)

- adding GUI information of a menu associated with the status displayed where the target GUI definition file is used to display the menu in said target operating system environment by using the GUI definition file (“When the above conversion is complete, the converted interface control executing section 241 of the converted interface control section 117 in FIG. 5 displays the converted picture on the display of the output unit 104 on the basis of the converted picture information in the converted picture information storage section 116,” col 6, lines 18-44).

Okada does not explicitly teach transferring the application from the original operating system environment to the target operating system environment. However, Blanton teaches that Windows as the original operating system and UNIX as the target operating system where porting is expected to be performed were well-known in the art of software development and distribution at the time applicant's invention was made (“A number of software products provide development and operational environments to facilitate the porting of UNIX applications to Windows NT...to minimize the amount of code rewrite for the ported application,” abstract).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Okada to transfer the converted picture that is “in accordance with different operation environments and a different users (col. 1 lines 5-17)” so that the GUI application created using Motif library, for example, in UNIX system can be seamlessly used in WINDOWS system. The modification would be obvious because one having ordinary skill in the art would be motivated to “minimize the amount of code

rewrite for the ported [UNIX] application (abstract)" in Windows system as suggested by Blanton.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Okada teaches:

-rewriting an interface layer of the application in said original operating system environment so that said target GUI definition file is read in said target operating system environment ("the component replacement information in the component replacement information storage section 224, and the virtual component addition information in the virtual component addition information storage section 226 to perform information replacement under the control of the converted interface generation control section 201," col 5, lines 15-43; "a user interface conversion method and apparatus which extract only necessary information from original picture information and automatically generating a converted picture without changing an existing application program and requiring the producer of pictures to generate all picture data again," col 2, lines 1-10; see also col 4, lines 10-16) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Okada teaches:

- sequentially searching from a parent window to a sub-window of said menu ("When the picture information is acquired, the target point extracting section 113 refers to the target point information in the target point information storage section 114 (step S305) and extracts target point picture information from the picture information

stored in the picture information storage section 112 (step S306). Target point information as reference information designates the **sub-tree structure of target interactive components from the tree structure of the picture information**. For example, a target application window, a current window, a focused interactive component, and the like can be designated," col 4, lines 51-64; See also Fig 7A-B, Fig 8) and fetching a position and a size of each window in said displayed status ("The stored converted picture information has a tree structure constituted by logic structure information indicating the configurations of the window displayed on the converted picture and interactive components such as a menu and buttons on the window, layout information indicating the positions and sizes of the interactive components, attribute information about the captions (item names) and focus states of the interactive components, and information about links between the interactive components in the picture information and corresponding event," col 5, lines 44-57; col 4, lines 51-64),

- creating the target GUI definition file comprises outputting said fetched position and size of each window and creating the target GUI definition file ("When the above conversion is complete, the converted interface control executing section 241 of the converted interface control section 117 in FIG. 5 displays the converted picture on the display of the output unit 104 on the basis of the converted picture information in the converted picture information storage section 116 (step S312)," col 6, lines 18-44; see also col 7, lines 50-60; col 5, lines 23-57) as claimed.

Per claim 5:

Blanton discloses that the original operating system environment is a UNIX operating system and the different operating system environment is a Windows operating system ("A number of software products provide development and operational environments to facilitate the porting of UNIX applications to Windows NT...to minimize the amount of code rewrite for the ported application," abstract).

Regarding claims 6, 7, 9, and 10, they are the system versions of claims 1, 2, 4, and 5 respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1, 2, 4, and 5 above.

Regarding claim 11, it is the storage medium version of claims 1 and 6, respectively, and is rejected for the same reasons set forth in connection with the rejection of claims 1 and 6 above.

Per claim 15:

Okada discloses:

-a GUI definition file for said application ("The picture information ... is triggered by the event from the event acquiring section ... to acquire picture information constituted by logic structure information indicating the configurations of the window displayed on the picture and interactive components such as a menu, buttons, and the like on the window, layout information indicating the positions and sizes of the interactive components, and attribute information about the captions (item names) and focus states of the interactive components... The picture information ... stores the acquired information in the picture information storage section," col 4, lines 43-64);-a display

device (“displaying a converted picture in accordance with the generated converted picture information,” col. 2 lines 35-45); a creating means for rewriting a GUI information of a GUI definition file for the application of said original operating system environment to a target GUI information of a GUI definition file for the application in said target operating system environment so as to display a created GUI image in said target operating system environment (“When the above conversion is complete, the converted interface control executing section 241 of the converted interface control section 117 in FIG. 5 displays the converted picture on the display of the output unit 104 on the basis of the converted picture information in the converted picture information storage section 116,” col 6, lines 18-44) for replacing an original operating system dependent portion of an interface layer of the application in said original operating system environment providing the first platform with a target operating system dependent portion of an interface layer of the application in said target operating system environment providing the second platform to create the application of the target operating system environment (“a user interface conversion method and apparatus which extract only necessary information from original picture information and automatically generating a converted picture without changing an existing application program and requiring the producer of pictures to generate all picture data again,” col 2, lines 1-10; see also col 4, lines 10-16)

Okada does not explicitly teach transferring the application from the original operating system environment to the target operating system environment. However, Blanton teaches that Windows as the original operating system and UNIX as the target operating system where porting is expected to be performed was well-known in the art

of software development and distribution at the time applicant's invention was made ("A number of software products provide development and operational environments to facilitate the porting of UNIX applications to Windows NT...to minimize the amount of code rewrite for the ported application," abstract). Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Okada to transfer the converted picture that is "in accordance with different operation environments and a different users (col. 1 lines 5-17)" so that the GUI application created using Motif library, for example, in UNIX system can be seamlessly used in WINDOWS system. The modification would be obvious because one having ordinary skill in the art would be motivated to "minimize the amount of code rewrite for the ported [UNIX] application (abstract)" in Windows system as suggested by Blanton.

Per claim 16:

The rejection of claim 15 is incorporated, and further, Okada teaches: the operating system dependent portions comprise dependent portions that draw GUI images in a window of a display according to an image instruction of the application by using corresponding GUI definition file (col 5, lines 15-43; col 2, lines 1-10; see also col 4, lines 10-16) as claimed.

Per claim 17:

The rejection of claim 15 is incorporated, and further, Okada teaches:
- said creating means creates said target GUI definition file from the GUI definition file to allow that a GUI tool of the target operating system environment displays the GUI

images in a window of a display according to a processing of the operating system dependent portion used in said target GUI definition file (col 5, lines 15-43; col 2, lines 1-10; see also col 4, lines 10-16) as claimed. Per claims 12-14, they are the method versions of claims 15-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 15-17 above.

Per claim 18, it is another method version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 19, it is another method version of claim 18, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 18 above.

7. Claims 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the instant application in view of Hiromichi et al. (JP 07-073011, published 3/17/1995) hereinafter referred to as "Hiromichi."

Per claim 15:

APA discloses:

- a GUI definition file for said application ("A GUI displays the desired menus using GUI definitions," APA, page 2 lines 23-26)
- a display device ("A GUI displays the desired menus using GUI definitions," APA, page 2 lines 23-26)
- a creating means for rewriting a GUI information of a GUI definition file for the application of said original operating system environment to a target GUI information of

a GUI definition file for the application in said target operating system environment so as to allow a created GUI image to be displayed in said target operating system environment ("it has been proposed that an interface layer that mediates between applications and platforms be established so that creation of an application using that interface will enable transfer of that application to another platform merely by rewriting the interface part," page 1-3)

APA does not explicitly teach that a creating means for replacing an original operating system dependent portion of an interface layer of the application in said original operating system environment providing the first platform with a target operating system dependent portion of an interface layer of the application in said target operating system environment providing the second platform to create the application of the target operating system environment thereby transferring the application from...environment as claimed. However, Hiromichi teaches that it was known in the art of software distribution and GUI development, at the time applicant's invention was made, to "easily perform transportation to different plotting circumstances (Hiromichi, abstract)." It would have been obvious for one having ordinary skill in the pertinent art to modify APA's disclosed system to incorporate the teachings of Hiromichi. The modification would be obvious because one having ordinary skill in the art would be motivated to "make transplantation by different drawing environment easy (page 3 paragraph 0003)" by separating the platform dependent part of the interface from the independent part so that only that part needs to be replaced (page 3 paragraphs 0004 and 0005) as

Art Unit: 2193

suggested by Hiromichi.

Per claim 16:

The rejection of claim 15 is incorporated, and further, Hiromichi teaches: the operating system dependent portions comprise dependent portions that draw GUI images in a window of a display according to an image instruction of the application by using corresponding GUI definition file ("What it depends for on change of a drawing environment is only the drawing data display module...change of a drawing environment can be coped with only by modification of the drawing data display module," page 5 paragraph 0009) as claimed.

Per claim 17:

The rejection of claim 15 is incorporated, and further, Hiromichi teaches:
-said creating means creates said target GUI definition file from the GUI definition file to allow that a GUI tool of the target operating system environment displays the GUI images in a window of a display according to a processing of the operating system dependent portion used in said target GUI definition file ("When the virtual graphic interface section is prepared ...and drawing environments differ, it is attained by changing only the ...environmental dependence section," page 3 paragraph 0005) as claimed.

Per claims 12-14, they are the method versions of claims 15-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 15-17 above. Per claim 18: this claim is another version of the claimed method discussed in

claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

Per claim 19, it is another method version of claim 18, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 18 above.

Response to arguments

8. Applicant's arguments filed 7/22/2005 have been fully considered but they are not persuasive. In page 9, regarding rejection under 103(a), the applicant merely states that the references do not teach the limitations. The Applicant fails to discuss the references applied against the claims, specifically explaining how the claims avoid the references or distinguish from them and to point out disagreements with the examiner's contentions and fails to show that the reasons to combine and motivations concerning the rejections of the claims are improper. As the motivations to combine of APA and Hiromich, Okada and Blanton are clearly shown above, the rejections under 103(a) are maintained. Also, the applicant is silent regarding the rejection under 102(b) on claims 12-18 by Hiromichi. The Applicant should discuss the reference applied against the claims, specifically explaining how the claims avoid the reference or distinguish from them and to point out disagreements with the examiner's contentions. As shown above, Hiromichi discloses the recited transferring method from an original operating system to a target operating system environment in the claims. In Hiromichi, "when the virtual graphic interface section is prepared ...and drawing environments differ, it is attained by changing only the ...environmental dependence section (page 3 paragraph 0005)," therefore realizing easy portability without "full coding modification (0003)."

Applicant's arguments with respect to claims 1,6,11, 12, 15, and 18 by Okada have been considered but are moot in view of the new ground(s) of rejection based on the amendment. As addressed above, Okada does not explicitly teach transferring the application from the original operating system environment to the target operating system environment. However, Blanton teaches porting an application to a different operating system was well known in the art of software development and distribution at the time applicant's invention was made ("A number of software products provide development and operational environments to facilitate the porting of UNIX applications to Windows NT...to minimize the amount of code rewrite for the ported application," abstract). Further, regarding claim 4, the applicant states that Okada does not disclose the limitations in claim 4. In response, Okada discloses that "target point information as reference information designates the sub-tree structure of target interactive components from the tree structure of the picture information," col 4, lines 51-64; See also Fig 7A-B, Fig 8). The picture is converted by logic structure information such as the fetched layout information including the positions and sizes of components etc.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is

not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 7:30-4 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

IK
Oin

Kakali Chaki

KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100